

Threat to teaching companies

By Robin McKie
Science Correspondent

The expansion of Britain's highly successful teaching company scheme, which links manufacturing industry with universities and polytechnics, is being threatened by cuts in the Department of Industry.

An urgent strategy review has been launched in a bid to highlight alternative sources of finance for the scheme, including possible increased revenue from industry.

This move follows a recent warning by the Department of Industry, which jointly funds teaching companies with the Science Research Council, that it can only contribute about £500,000 of its half of the £1.5m needed to finance the scheme this year. The department may make up this deficit later in the year, or

the extra cash could be supplied by the SRC.

The real problem will come in future years when it is hoped to expand the scheme and increase spending to about £1.8m a year. The department has warned it cannot guarantee its full share of these costs any longer.

This could be a serious blow to a highly successful project which was set up in 1977 to direct equivalents of teaching hospitals and allows graduates to work in real life industrial situations. They are funded by the DoI and SRC and their work includes projects for improving manufacturing processes and plant performance for a particular firm.

It was originally planned that

there would be 20 teaching companies set up by 1981: there are now 33 such programmes with many industrialists and academics anxious to set up more companies. It was also hoped that the scheme would expand into other areas than manufacturing, such as training in chemical and civil engineering.

The strategy review is urgently seeking ways of making up the likely shortfall in funds and a variety of methods are being investigated, including, as one academic contacted with scheme staff, "everything from the Common Market to a blind box outside Woolworths".

The review will also examine ways of possible cost cutting and improving the efficiency of the teaching companies' administration.

Technical study sites considered

By Charlotte Barry

The site of the new Technical Change Centre, previously known as the Centre for Analysis of Technical Change, has been narrowed to three choices. It will be based at either Oxford University, Manchester University or Imperial College, London.

However, the committee of nine academics and civil servants, headed by Sir Michael Swann, patron of the Centre, will not make a final decision until a director is appointed.

Advertisements for this important post, which could go to an academic or industrialist, will appear soon in the national press. Applications will be processed from the end of this month.

Originally, a London base seemed the obvious choice but cost led the committee to consider other locations. Since then Bath, Southampton and Cambridge universities, a number of London colleges and Cranfield Institute of Technology have expressed interest.

Another contender is the Science Policy Research Unit at Sussex University and it is surprising that it has not made the final shortlist. This is believed to be because SPRU is to be used extensively by the new centre for outside contract work.

The final choice rests heavily on a combination of geographical convenience and the existence of a major group at the institution working on policy studies and their application to economic and technical change. Imperial College and Manchester University, and to a lesser extent Oxford University, have extensive experience in this field of study.

The independent centre, which will cost about £750,000 a year to run, will be supported by £525,000 from each of the Social Science and Science Research Councils over the first five years. This will be backed by £1.5m from the Leverhulme Trust, which will be used to build the centre up as quickly as possible.



Sir Michael Swann, patron of the Centre for Analysis of Technical Change.

Boyson comes under fire over AUT pay

University lecturers' leaders are giving the Government a further chance to say when it will respond to the 19 per cent pay deal agreed with their employers.

Despite an indication more than two weeks ago that ministers would call a meeting of Committee B, the second stage of the negotiating process, when the Government responds to the offer, no sign of this week of a date.

Ministers are coming under increasing pressure from MPs over the continuing failure to call the meeting. Mr. Rhodes Boyson, under-secretary of state for education, said he hoped it would be convened "very shortly".

A lobby of Association of University Teachers members will next week press the case for an early decision by the deal finalised with the employers in mid-May.

The union's executive is due to meet later in the month to review the position. Last week the executive decided against immediate use of ballots to force a decision.

Poly leaders plump for GLC control proposal

By David Johnson

Added support for putting the eight London polytechnics under the control of the Greater London Council (GLC) has emerged this week.

In a last minute submission to the Young Committee three leading figures at North London Polytechnic suggest an alternative in GLC control would be for the five inner London polytechnics to join with North East London Middlesex Polytechnic and a number of other higher education institutions under the wing of a committee of elected or nominated GLC councillors.

The three, the governor of North London, Mr. John Diamond, his vice-chancellor and the polytechnic's director, Dr. David MacDowell, emphasize that they do not speak for the GLC or the GLC area and are not speaking for the GLC area and are not speaking for the GLC area.

They also resist any suggestion that their decision to make an additional decision is an indication of differences of opinion among the directors of the five ILEA polytechnics and their chairman of governors.

The Committee of Directors of London Polytechnics prefers the idea of national funding but accepts that in the current climate of firm Government opposition to this solution that ILEA should not be broken up.

The submission from the PNL

three also starts from a point of opposition to the ILEA but argues it should be more flexible and be more open to change.

Mr. Diamond described the submission as "completely new" and suggested that the GLC should be given a determination to disband the structure of education in London.

Despite the protest, the submission was made following a decision by the directors of the ILEA to report on the Government decision to disband the structure of education in London.

Control at Greater London would satisfy many of the demands involved. Half the students in London polytechnics are from the GLC area and the GLC area and are not speaking for the GLC area.

Mr. Diamond, director of North London Polytechnic, said: "It is a reasonable suggestion, but not their job to try to Government's problem for us."

The break up of ILEA was roundly condemned at a 200 teaching and non-teaching staff meeting last week.

Of the 9,000 submission committee, by the closing evidence, more than 55 per cent voted to oppose the ILEA.

Drop in overseas numbers 'unlikely'

July 18, 1980 No 403

By Ngien Croquer

Fears of a massive drop in the number of overseas students coming to British universities in October are unlikely to materialise.

Many reports that applications are about the same as at this time last year and some have found increased demand. Even those reporting falls are not facing the loss of numbers anticipated as a result of the Government decision to charge overseas students full cost fees.

Nevertheless, the universities are expressing considerable caution and admissions officers stress that they will not know the true position until the students actually arrive. There is concern that some students will come and then find they cannot afford to continue.

At Cranfield Institute of Technology, applications for the most expensive course in Britain (aeronautics students from overseas will have to pay £6,000 next year) have increased from 118 in 1979 to 140 by June 1980. Almost as many overseas students have applied as last year and standard of applications have remained high.

At Manchester University, overseas applications for undergraduate courses are up by 26 per cent. Postgraduate applications are holding up fairly well, though less well in science. The university expects to retain a similar intake to last year.

At the University of Manchester, Institute of Science and Technology, overseas undergraduate applications

are down by 11 per cent. Most departments report marginal increases in postgraduate applications but the university is anxious about the position.

Universities which have created new courses are reaping the benefits. Essex, which has started two new courses, reports an increase of 32 per cent in undergraduate overseas demand and expects a slight fall in postgraduate numbers. Bath says recruitment of overseas students is "very encouraging" and does not anticipate any decline.

The London School of Economics, which will put up new diploma courses, expects about 250 more students from overseas next year, although it was hoping for an increase of 400. A number of London schools have advertised

extensively abroad, particularly in America. At the School of Oriental and African Studies, applications, offers and acceptances are broadly similar to this time last year.

At Imperial College there has been a noticeable decline in postgraduate numbers, but the standard of overseas applicants has fallen. There has also been a change in the countries of origin. Fewer students are coming from the Indian sub-continent, the Far East and the poorer African countries and more from the Middle East and South America.

At Queen Mary College, firm acceptances by overseas undergraduates are down by about 15 per cent compared with this time last year, and at Liverpool overseas undergraduate applications are down by about 10 per cent.

Overseas students face a new blow in the next months with the prospect of exclusion from free medical treatment under the National Health Service.

Proposals under consideration at the Department of Health and Social Security would introduce charges for all foreigners, using the concept of ordinary residence as a qualification. Only those whose countries have reciprocal agreements with Britain would be exempted.

In a written reply to a Parliamentary question last week Mr. Patrick Jenkin, Secretary of State for Social Services, confirmed that the Government was considering ways of reducing the cost to the NHS of providing free treatment to overseas visitors.

He told Mr. Alan Bell, Liberal MP for Berwick, that those not ordinarily resident in Britain had no rights to treatment under the NHS, but such had been provided for holidaymakers, businessmen and others "as a concession".

Dr Gerard Vaughan, Minister for Health, has refused to allow fears expressed in letters from the National Union of Students and the United Kingdom Council for Overseas Student Affairs that the policy will exclude foreign students from using university health services.

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Scots pressure group calls for education policy centre

By Olga Wojtas

A group striving to promote reforms in Scottish education has called for the establishment of a centre for educational policy studies.

The Scottish Education Policy Review Association, an informal group of teachers, parents and educationalists, has published a paper recommending a thorough analysis of present plans which has been sent to Scottish educationists and MPs.

The group's complete lack of official recognition has led to all attempts of Scottish educationists to obtain information about the group being blocked. The group's members, who are all teachers, have been asked to keep their names secret.

The authors, Mr. Ken Reid and Mr. Don Skelton, see the collapse of education having a major part to play in meeting Scotland's educational needs. They are concerned that the current policy of education is not a plan to meet the needs of the future but a plan to meet the needs of the present.

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school to the younger school, leaving the older school to be used for visiting college facilities for pre-university and post-university education.

Opportunities for recurrent education and training are being given priority in Scottish education. The Scottish Education Policy Review Association, an informal group of teachers, parents and educationalists, has published a paper recommending a thorough analysis of present plans which has been sent to Scottish educationists and MPs.

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University investigates charge of anti-semitism against cult

Manchester University is investigating the background of a cult alleged to be anti-semitic, which it has accepted a challenge looking for a protest from the Board of Deputies of British Jews.

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British library gets funding

Funds to build the first stage of the British Library building are available, says Mr. John Storer, Chancellor of the Duchy of Lancaster, today a group of MPs this week.

Addressing the Select Committee on Education, Science and the Arts, Mr. Storer said that the first stage of the building, which will cost £100 million, would be completed by 1985.

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Leverhulme inquiry

Continued from page 1

The first seminar will follow at approximately monthly intervals. The seminar will be held at the Leverhulme Trust, which is the main source of funding for the project.

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Training grant to be axed

The Committee of Vice-Chancellors and Principals plans to cut off an annual grant of £15,000 for training of lecturers in the next financial year.

The committee was set up in 1972 to advise the Government on the training of university lecturers.

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Breakthrough for Brunel researchers

By Robin McKie
Science Correspondent

An agreement which could lead to a breakthrough in negotiating staff appointments for researchers in non-teaching posts at British universities has been reached at Brunel University, it was revealed this week.

The deal, worked out between the university and the local branch of the Association of University Teachers, will provide appointments for researchers on fixed-term contracts with at least 10 years' continuous service who have reached the age of 55. Funding for these extra posts will be provided from earnings from outside sources, such as industrial and public body research contracts.

It is now expected that the agreement, which was finalised last week, will lead to strong pressure from the AUT to find extra funding for their work and allow Brunel to maintain a nucleus of good researchers which might otherwise disperse at the end of fixed-term contracts.

"This deal enables us to continue to employ good people and build upon the good work that goes on here," Mr. Neave added.

However, he pointed out that the cost for the staff appointments pool, which could reach about £40,000 a year, would not be met from any extra levy on research council grants and would only come from the research contracts the university received from industry and government agencies.

At Manchester Polytechnic, director Sir Alex Smith has warned that a proposed £1.5m cut in the polytechnic's budget this year could lead to 100 compulsory redundancies before August, although the City Council has an official policy of no compulsory job losses.

Dr Ray Rickett, chairman of the Committee of Directors of Polytechnics, said that most polytechnics should be able to avoid redundancies this year, but the situation would change if the pay arbitration led to increases in excess of local authority estimates.

New redundancy scheme for lecturers

A national redundancy scheme designed to make it cheaper to shed academic staff in polytechnics and colleges is being examined by senior local authority officers.

The aim would be to transfer the cost of redundancy payments from individual authorities to the national Advanced Further Education (AFE) pool. At present these costs are met locally.

The costs are generally so high that authorities shedding lecturers show no saving in the first year. The

£50m space project to probe comet

by Robin McKie
Science Correspondent

Europe is to send its own space probe to explore Halley's comet when it next approaches Earth in 1986. It was decided by the European Space Agency's science programme committee last week.

The £50m project, named Giotto after the Italian painter Giotto di Bondone, whose 1304 painting is considered the first realistic representation of the comet, will carry cameras, a mass spectrometer and other instruments to within 1,000 kilometres of the comet's key nucleus at a speed of 70 kilometres a second.

The mission is ambitious but risky because the probe could be damaged by the debris surrounding the nucleus. Senior V. Mann, ESA's co-ordinator of scientific programmes, described Giotto as "a kamikaze mission" although he added that he considered it "an important first in space as no one has properly investigated a comet before."

The controversial decision to go ahead with Giotto also means that other ESA science missions, including Hipparcos, a probe to accurately plot star positions, will be delayed to give priority funding to the comet project.

The Giotto mission replaces a previously planned joint United States-European attempt to investigate both the Halley and another comet known as Tempel 2. This project had to be abandoned when United States' President Jimmy Carter terminated America's space budget in February as part of his attempt to balance the country's fiscal programme.

In deciding to go it alone, ESA scientists estimate that knowledge of comets is particularly important because these objects are remnants of the ancient dust cloud out of which the solar system condensed, and should provide vital clues about the origin of planets.

Boyson fends off fees criticism

by John O'Leary

Ministers are considering asking the Hongkong government to transfer funds from the universities and polytechnics to pay for students living in Hong Kong.

Dr Rhodes Boyson, Under-Secretary for Higher Education, has told MPs. Dr Boyson was replying to criticism from both sides of the House of Commons in an unusually well attended adjournment debate on university fees for Hongkong students. The subject was raised by Sir Paul Bryan, Conservative MP for Havdon, who called for equal treatment for Britain's dependencies with the six French overseas departments whose students are considered EEC nationals.

"Colonial exploitation is a term which I happen to find from the terminology of the relationship between Britain and its dependent territories," said Sir Paul. "The retention of discrimination in this matter against British dependent territories is an extraordinary inconsistency which I hope will be removed before the fees become due in this autumn."

The relationship between Britain and Hongkong was advantageous to

both and needed to be nurtured. There are, no doubt, good reasons for including in the EEC those remaining French colonies which are departments of France, but it is preposterous to allow the technicalities of the Treaty of Rome to drive us to make absurd distinctions in recognition of obligations to the dependent territories," Sir Paul said.

Dr Keith Hampson, a Parliamentary Private Secretary in the Department of the Environment, supported the call for the fee exemptions to be widened. He said he had been struck by the concern expressed over fees at a recent visit to Hongkong. It was the touchstone of the relationship.

Dr Boyson accepted that the distinction between the British and French dependencies might be morally wrong, but said it was a legal question. Only seven students had come to Britain from the French departments in 1977-78 and the EEC was the only area of the world which sent fewer students to this country than it received.

With the development of higher education in Hongkong the demand

would be for postgraduate places and the Government's fund for overseas research students would support one in seven of those categories within three years. In addition, he said, ministers were examining Hongkong's loan system, which provided \$26m to the two universities and \$8.5m to the polytechnic last year.

"Perhaps the government of Hongkong could be approached on the possibility of some of that help being transferred to Hongkong students in this country," said Dr Boyson, adding that he had discussed the proposition with the Foreign and Commonwealth Office.

In a debate in the House of Lords, Lord Gladwyn called for a meeting on the subject of overseas students and the relationship between British and French Commonwealth countries, to consider ways of tempering the worst effects of the policy. This should follow next month's Commonwealth Education Conference, in Colombo, and consider an expansion of state-subsidised scholarships, the introduction of special student visas and extended reciprocal arrangements between countries, he said.

UGC policy on nurseries 'harmful'

by Ngao Creguer

Two weeks before the expiry of University Grants Committee's blue for universities to maintaining nurseries, a report says this policy could have a devastating effect on the demand of equal opportunities in higher education.

The UGC policy is one of a financial threat facing universities and colleges, nursery schools, which are being singled out in a report published this week by the Equal Opportunities Commission. The report, based on a 1979 survey carried by the National Union of Students, says that the UGC policy of proposed changes in student fees, which may be as high as £100 a year, will have a devastating effect on the demand of equal opportunities in higher education. The report says that the UGC policy of proposed changes in student fees, which may be as high as £100 a year, will have a devastating effect on the demand of equal opportunities in higher education.

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Birmingham attacks move to release smallpox report

by Robin McKie

Science correspondent

Birmingham University this week launched an astonishing, blistering attack on the Government's decision to release the Shuter report on smallpox outbreak three years ago.

"It is a biased report, possibly the most biased document that has ever been issued in this country at such a high level of authority," a university statement claimed.

The Department of Health and Social Security said the publication decision had been made because associated legal difficulties had been resolved. The move was welcomed by the Association of Scientific, Technical, and Managerial Staffs, whose members were affected by the outbreak.

The university statement is judicial because they have already admitted liability for the death of Janet Parker, a spokesperson said.

The report of Professor Shuter and his committee was originally leaked to the press last year, by Clive Jenkins, general secretary of ASTMS, following the death of one of its members, medical photographer Mrs Janet Parker, who contracted smallpox while working at the university. Shortly after, the head of the medical microbiology department, Professor Henry Bedson, committed suicide.

Withdrawal of university liability for the death of Janet Parker, a spokesperson said.

The UGC, it is reported, has the EOC that student grant by should be increased to £100 a year, but the UGC has refused to do so.

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Fiasco 'wasn't Clegg's clanger'

While polytechnic and university lecturers waited to hear about their 1980 pay settlement this week the Government published a report by the former Ombudsman, Sir Alan Marra, which examines the Clegg Commission's handling of the 1980 pay dispute.

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Birth centre could become problem child

by Olga Wnjam
Scottish Correspondent

A £1m centre for research into reproductive biology opened in Scotland this week with a warning that its work would raise a host of legal, human and ethical problems.

The warning came from Madame Simone Vell, president of the European Parliament, who was receiving an honorary degree from Edinburgh University, which is funding the centre in partnership with the Medical Research Council and the Scottish Health Board.

Speaking at the opening ceremony, Madame Vell said the world was facing a revolutionary change in the way of life and in the way of thinking. Some countries had already passed legislation governing artificial insemination, but there could be even more complex problems in the future with the birth of children conceived normally by a couple after which the sperm is implanted in another woman.

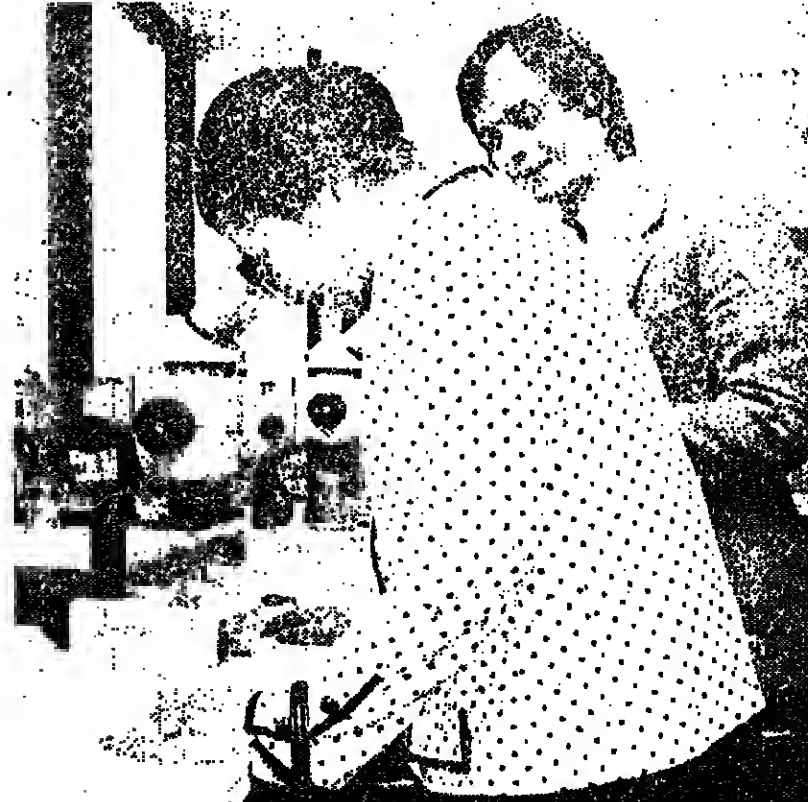
She warned that there was already a profound disparity between the considerable progress of scientific and technical knowledge, and the far more halting progress of human wisdom.

"As science develops new powers, man assumes new duties," she said.

The centre, built beside Edinburgh's Royal Infirmary, also houses the university's department of the and the National Health Service andrology laboratories.

The centre's primary aim is to bring together university and MRC scientists engaged in fundamental research in reproductive biology and clinicians involved in the care of patients with reproductive problems.

These were not new, said Mme Vell, and had always been experienced in a dramatic fashion—sometimes leading to suicide.



Dr John Aitken, a Medical Research Council scientist, shows Madame Simone Vell, president of the European Parliament, the equipment used for research into a contraceptive vaccine at the new £1m centre in Edinburgh.

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Ex-minister speaks out on fees equation

Senior civil servants supported the use of a less controversial method of calculating overseas students' fees when the last Labour government inquired into the issue, a former minister revealed last week.

Mr Gerry Fowler, now deputy director of Preston Polytechnic, said that a Cabinet committee of officials from a range of Government departments had produced a report in 1975. Because of the timing of the exercise, it had gone straight to the Cabinet, bypassing ministers at the Department of Education and Science.

The report had favoured the use of marginal costs but had concluded that the use of a less controversial method of calculating overseas students' fees would have been employed instead. Opponents of the current fee proposals have long argued that this method has produced an inflated view of the subsidy given to overseas students.

Mr Fowler said that the report had also considered the addition of capital costs to the equation and had recognized the benefits to the country of foreign students. But these calculations were also considered too variable and recurrent costs only were recommended and finally accepted.

These discussions marked the beginning of the process which culminated in the Conservative Government's decision to introduce so-called full-cost fees. Mr Fowler said. He and Mr Fred Mulley, then Secretary of State for Education, had fought a rear-guard action against the policy, which resulted in both moving from their posts at the DES.

Mr Fowler urged delegates to the annual conference of the United Kingdom Council for Overseas Students Affairs to continue their campaign against the basis of the fee calculations. Britain was out of step with every other developed nation in its fee policy and would suffer a drop in overseas admissions which would lead to a reduced income and eventually fewer places for home students.

In a subsequent address to the conference, Mr Christopher Price, chairman of the Select Committee on Education, took the issue back even further, accusing Treasury officials of campaigning for full-cost fees for 20 years. The original decision to discriminate between home and overseas students had been taken by the Cabinet in 1960.

Overseas continued

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LECTURERS

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REPUBLIC OF SINGAPORE

CNA secretary dies suddenly

Mr Barrie Bleach, secretary of the Council for National Academic Awards since 1974, has died suddenly while playing golf.

He was educated at Shaftesbury Grammar School, Dorset, and at Magdalene College, Cambridge. He served for some years in Uganda, where he was the devoted and much respected headmaster of an African boys' secondary school.

On his return to the United Kingdom he held senior administrative posts at Bristol University, Kingston Polytechnic and Thames Polytechnic.

To joined the CNA at a time of great change and rapid expansion. As secretary, he was closely involved in the development of the council's policy on partnership and validation, a major revision of its list of degree regulations and the many problems stemming from increasing economic stringency.

His many colleagues and friends in the CNA, in the polytechnic and college associations, will remember him as a first-rate administrator and as a man of the highest integrity with an unwavering sense of duty.

He leaves a widow, a son and a daughter.

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EEC grant for women's courses

Hatfield Polytechnic, the pioneer of Non-Occupational for Women (NOW) courses, has been granted a £70,000 EEC grant to help women to study for a diploma in business studies.

The polytechnic's application was given top priority by the social fund committee, one of whose main aims is to encourage women to study for a diploma in business studies.

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North American News

New hope for blacks to reach the zenith...

from Clive Cookson

WASHINGTON The United States Supreme Court concluded the 1979-80 law term by giving its broadest endorsement so far of "affirmative action" programmes designed to favour blacks and other racial minorities. The justices decided by a 5-3 majority that Congress acted constitutionally when it passed a law in 1977, reserving 10 per cent of a \$4 billion public works programme for minority contractors.

In terms of clarity the ruling was a second major step forward from the confused case of *The University of California v. Bakke* two years ago. The Supreme Court's opinion was not as confusing and so divided that even universities and little guidance about how their affirmative action could go, and other types of institution received almost no help.

The first step came in the *Hefner* case last year when the court upheld a private employer's affirmative action plan which reserved half the places for a company training scheme for black workers. The court and employers could give preference to blacks—or even maintain racial quotas—in order to eliminate unequal racial imbalances in the workforce.

In *Bakke* the court had ruled that the University of California acted unconstitutionally in reserving places for minorities at its Davis Medical School because there was no clear history of discrimination or racial imbalance there.

"We reject the contention that in this remedial context the Congress must act in a wholly 'colour blind' fashion," wrote Chief Justice Warren Burger, giving the majority opinion in last week's case, *Fillmore* against the Secretary of Commerce, Justice Burger, who had come down against the Davis Medical School's affirmative action plan in *Bakke*, said the 10 per cent set-aside was justified because "Congress had abundant evidence from which it could conclude that minority businesses have been denied effective participation in public contracting opportunities by procurement practices that perpetuated the effects of prior discrimination."

Although the *Fillmore* ruling does not apply directly to education, its indirect effect will be to make it easier for Congress to impose strong affirmative action requirements on universities. In the present political climate there is not much likelihood of that happening, but the pendulum could swing back towards more civil rights activism from Congress.

Lawyers disagreed on the important question of whether, in the absence of a specific law from Con-

gress, federal agencies such as the Department of Education could justify stronger affirmative action programmes.

Whatever its effects in other areas, the favourable outcome of *Fillmore* will encourage the government to direct more support in businesses owned or run by minorities. Federal agencies have in fact been making no effort to help minority firms since the mid-1960s, but their main activity has been to make capital available for blacks and hispanics to start small businesses in the retail and service sectors of the economy.

The results have been disappointing. The gross receipts of all minority businesses in 1978 came to less than 1 per cent of the national total, and their average annual turnover was only \$40,000. Even the largest black-owned companies are concentrated in the retail and service trades, which are characterised by slow growth and low profit margins. They are almost absent from high-technology manufacturing industry. Black businesses have suffered from poor locations and limited access to the general (white) market, and everyone agrees they will be helped by increased supply of trained minority managers. Until recently business schools have not taken as much interest in minorities as, say, medical and law

schools and, conversely, talented young blacks have focused on careers in law, medicine and education, rather than business.

Now, however, many business schools are making up for their past neglect by putting on special programmes for minorities. The Consortium for Graduate Study in Management, with headquarters at Washington University in St. Louis, led the way. It raises nearly \$1m a year from companies and foundations, paying the money out in MBA fellowships for blacks, hispanics and Indians at the six participating institutions. The Council for Opportunity in Graduate Management Education is a newer group of 10 business schools modelled on the consortium.

Typical of the efforts individual schools are making is Babson College, a leading undergraduate business school in Massachusetts. Babson was so alarmed by its falling black enrolment—down from 40 in 1974 to 25, or less than 2 per cent today—that it recently set up a full-time minority affairs office to improve the life of its black students and to recruit more in the future. An important part of the recruiting drive is to bring black high school pupils to the college for up to a week at a time to show them the attractions of a career in business, preceded by an education at Babson.

If the new policy is to succeed, and indeed if minorities are to make progress in business generally, it will be necessary to increase the supply of trained minority managers. Until recently business schools have not taken as much interest in minorities as, say, medical and law

...and Slaughter takes top job

The top job at the National Science Foundation has gone to John Slaughter, a black electrical engineer who is currently academic vice-president and provost of Washington State University. He will be the first non-white director of the NSF, the main federal agency supporting basic scientific research—it is roughly equivalent to the Science Research Council in Britain.

The White House had to press Dr Slaughter hard to get him to accept the NSF directorship. For he had left Washington DC only last summer, after serving as assistant NSF director for astronomical, atmospheric, earth and ocean sciences, and he was apparently unwilling to move back from the West Coast so soon.

But the prestige of the job eventually persuaded Dr Slaughter, 46, that it was worth taking. After his six-year term he can reasonably expect to become one of the first blacks chosen to head a major American university.

The Carter Administration hopes the appointment will boost its efforts to increase the number of

blacks and other minorities going into science and engineering.

Ronald Reagan could in theory fire Dr Slaughter if he wins the presidential election, but he is unlikely to do so, first because the NSF directorship is supposed to be a non-political post, and second because Reagan would probably not want to risk alienating American blacks (who are not likely to feature prominently in a Reagan Administration).

But Dr Slaughter might find life uncomfortable under Reagan if he looked at the NSF budget of more than \$1 billion a year as a prime target for government spending cuts. So far Reagan has revealed nothing about the science policy he would pursue as President, and he may not even have thought about it.

"Everybody over here is as happy as hell about it," said an NSF spokesman, describing his colleagues' reaction to their new director. "He is a hell of a nice person and a good administrator." The Senate must now confirm Dr Slaughter's appointment, but no opposition is expected.



Dr Slaughter: pressed hard.

Some tests now gaining in importance

Despite the recent wave of consumer forces and standardized tests and scholastic aptitude tests, the importance of entrance examinations is increasing. The college admissions process reflects the decreasing weight of standardized tests, as well as a central role in the process of selecting students. The quality of the tests in each year's class.

Colleges say they are not for students who have achieved in a variety of ways. Warren Williamson, not vice-president of the National Testing Service, said that the SAT is a precious little bit of the academic measures of tests," he said.

Mr Williamson was on his way to the SAT office in New York City, where he was to give a seminar on admissions to Harvard and the College of William and Mary.

Underlying much of the discussion was the attack on the SAT, directed by Ralph Nader, summer advocate, and other educators who have been attacking the admissions tests. Among other things, they are against the use of a range of high-level tests.

Whatever doubts may be raised in the future, the SAT is still the main test for college admissions. The SAT is a kind of scientific test, Fred Jowett, director of the SAT, said.

Mr Jowett attributed the reluctance on the part of the SAT to the usefulness of what he called "humanizing" admissions decisions.

The value of recommending high school guidance counselors, for example, is still being debated. The SAT is a kind of scientific test, Fred Jowett, director of the SAT, said.

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Overseas News

Students finish early to help in Olympics

from Michael Hinson

MOSCOW The Moscow Olympics would have been possible without the help of thousands of students, the use of universities and hostels and the participation of scores of student athletes.

Higher education establishments throughout the Soviet Union ended the academic year a month earlier than usual this summer and have been turned into makeshift hostels and youth hotels for the Olympic visitors. All examinations were brought forward to allow students to finish their year, and over 200,000 students found they were sent home early.

Meanwhile some 85,000 students have been assigned part-time summer jobs to help with the expected influx of 600,000 Soviet and foreign tourists. Some 17,000 are working as cooks, 22,000 as waiters and hotel staff, 9,000 as guides, 2,000 as helpers at the sports complexes and the others in office jobs.

Colleges and halls of residence in the five Olympic cities—Moscow, Leningrad, Tallinn, Kiev and Minsk—will be used to accommodate mainly Soviet and East European tourists and student groups, who have already started arriving for the start of the Games on July 19.

Most western tourists will be put up in the vast new hotel complexes the Russians have built. Although few visitors are now expected from the United States, Japan, West Germany and other boycotting coun-

tries, the Russians are still hoping for a large number of visitors from overseas, and students will play an important role as interpreters.

However, all those assigned to deal with westerners have been carefully chosen for their political reliability. They have also been instructed in how to behave, what answers to give and what to expect. One student from a Moscow Institute who is working as a porter said he and his companions had been trained to behave as if they were not interested in anything at all.

There is a little likelihood that Soviet students or academics will make use of the opportunity to engage in any widespread discussions with the western visitors. And Soviet security police have already begun a thorough screening of all visiting tourists to ensure that no books or manuscripts considered subversive are brought into the country.

Many students have been engaged in helping builders get the city ready for the games, and even university lecturers have been asked to report for duty in the Minsk effort. Moscow is now making to tidy up and clean up.

Many of the Soviet athletes themselves are officially described as students, though they have received surprisingly generous financial support from the state to enable them to get into training for the games.

Fund recovers from BOSS spy scandal

from Alan McGregor

GENEVA The International University Exchange Fund, still shaky from the crisis that hit it at the beginning of this year, is struggling to reassemble and keep itself a going concern for the sake of the 3,000 students—10 per cent from Southern Africa—whose scholarships it administers.

Funding over the next three months, 10 million Swiss francs, (£2.5m) is being provided by the Swedish government, while the IUEF complains the reorganization and works out guarantees to satisfy the other major donors—Denmark, Netherlands, Norway and Canada—the money they provide will be used to underwrite the fund's purposes.

"A severe blow", is how the fund's acting director, Mr. Hussein Soumaré, described the crisis. The fund, which was set up in 1971, was hit by the South African security police, who seized the fund's assets in the third week of January, took back with him to BOSS headquarters in

Pretoria details of fund activities and contacts during the three years in which he had been employed by the organization.

Being compromised to this degree was enough to bring to an end the fund's operations. Mr. Soumaré, 31, enjoyed the full confidence of many of the people he met while based in Geneva.

The validity of the fund's purposes is sufficient to ensure that the supporting countries will have re-affirmed, at a meeting earlier this month in Copenhagen, their commitment to the students now under his wing. In addition to those from Southern Africa, there are 500 in Latin America, with the rest mostly in African countries or in Europe.

But the Danes stipulated that the fund's resources be managed on the standards required by their governments' auditors, with the fund's assets held in a separate account. The fund's assets were seized by the South African security police, who seized the fund's assets in the third week of January, took back with him to BOSS headquarters in

Economy defeats grants committee's intentions

from Lindsay Wright

WELLINGTON Looking to staffing levels, research funding and equipment replacement are among the concerns covered in the annual report of the University Grants Committee tabled in New Zealand's Parliament.

The committee, recalling the enormous expenditure on research, said that the government's intention to increase the number of universities and to increase the number of students would be a major factor in the future.

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Olympic souvenir shops are relying on student help

Call for freeze on enrolments

Italy's impulsive health minister Aldo Aniasi asked another hospital's staff this month when he suggested "freezing" this year's medicine enrolments.

This came just a week after he appealed to secondary students sitting for their "A" levels to stay away from overcrowded medicine faculties.

Signor Aniasi argued that freezing all medicine enrolments would give faculties a respite and eventually reduce the 33 per cent unemployment rate of the nation's medical corps (which claims to have about 50,000 doctors out of jobs).

But academic sources suspected the minister's proposal was more derisive. They said he really hoped students who could not enrol in medicine this year would choose another career.

The "freeze-out" is being studied by Parliament and first reactions are not very favourable.

"It would gravely damage fundamental rights and discriminate against a class of young people who this year have obtained their 'A' levels, a group of senators from the ruling Christian Democrats wrote to the education minister.

The Aniasi proposal was not the only unusual scheme advanced to solve the problem of congested medical faculties and the lack of jobs for young doctors. In Milan, Graziella Grassani, president of the administrative council of the city's largest hospital, advocated the use of medical students above the third year as nurses for the mentally sick.

Signor Grassani, whose proposal was halted by one newspaper as "inspired by Anglo-Saxon pragmatism" and our administrators, saw such a measure as a temporary solution for a shortage of psychiatric nursing staff.

Tollan hospitals have been overcrowded by psychiatric cases, following a law 18 months ago which closed the mental asylums and decreed that the mentally ill have the right to be treated at public hospitals.

Even if we are optimistic it will take at least five years before we have sufficient professional nurses to look after the mentally ill. In the meantime these students could help out in the hospitals, the minister said.

Four-year plan to aid research

from Guy Noove

PARIS France must make more efforts to boost university based research. This is the main conclusion of the research committee set up to prepare the broad outlines of the next five-year plan, to run from 1981 to 1985.

Chaired by M. Pierre Lafitte, director of the Ecole Supérieure Des Affaires de Paris. The committee is particularly concerned at the relatively low commitment of both universities and the *Grands Ecoles* in applied research. This, the committee pointed out, is well below the level found in Germany, Japan and the United States, two of the main priorities of the Vth plan must be to rectify this situation.

Taking a hard look at the development of R and D during the past ten years it is apparent that research has accounted for a falling percentage of the Gross Domestic Product. In 1968, for instance, some 2.3 per cent of GDP was given over to research and development. By 1973, this had fallen to 1.3 per cent. The drop has been especially noticeable in the public sector where researchers have faced a well known continual fall in the funds available.

No less worrying is the massive differences in the role of R and D between different industrial sectors. In electronics and pharmaceuticals, research accounts for between 15 and 20 per cent of the value added, but less than 0.3 per cent in agriculture.

Another concern, of particular interest given the conclusions of Britain's Finlinton report on engineering education, is the apparently low volume of research engaged in by these institutes of higher education. Both universities and *Grands Ecoles*—involved in engineering education. Another weak point in the research effort, the committee suggests, is also to be found in medical research. Professors of medicine are not always qualified in research, while those engaged in this area are not guaranteed a place in the medical profession itself.

The committee made a strong plea for a major increase in funding for research. By 1985, the proportion of the gross domestic product set aside for research should be raised from 1.8 to 2.3 per cent. The implication is that research expenditure must rise by 2 per cent a year in the course of the next five years if France is to catch up with Germany and the United States.

ILEA recruits Australians

The Inner London Education Authority has asked Victoria's education department to help with a recruitment campaign to attract teachers to Britain.

ILEA has told Victoria's director-general of education, Dr. Lawrence Shears, that teachers of mathematics, science, English, modern languages and industrial arts are needed.

"What an odd situation when only eight years ago Victoria was importing plane loads of teachers from the United Kingdom and America," Dr. Shears said on his return to Australia from an overseas tour in which he studied teacher demand and supply in Britain and California.

Dr. Shears said officials of the ILEA had agreed that cuts in teacher training numbers in Britain in the early 1970s had been too severe. The non-selective method of making the cuts had also been a mistake. He warned that if proposed cuts in enrolments at Australian teacher colleges were implemented, Australia would also face a teacher shortage.

His remarks conflict with recent Victorian Post-Secondary Education Commission recommendations for a 30 per cent cut in teacher college enrolments over the next five years. If put into effect, the commission's recommendations would mean that primary teacher training intakes would have been slashed by 60 per cent between 1975 and 1984, and secondary teacher enrolments by 45 per cent.

Food scandal scraps image of science academy

The National Academy of Sciences used to stand above the dirt of public controversy, but during the past decade the American counterpart of Britain's Royal Society has become enmeshed in a series of the most inevitably, has sunk to a level where its once venerable reputation is quickly becoming stained by sordid mud.

This year the NAS issued two particularly controversial reports that drew unprecedented venom from press, public and politicians. Many observers fear for what that the academy's reputation has now been seriously damaged.

The first was a huge report—produced at great expense and a year behind schedule—by the Committee on Nuclear and Alternative Energy Sources (known as CONAES). It dismissed solar energy as "a commercially viable power source for the rest of the century without giving adequate scientific evidence for its conclusion."

The nuclear industry was pleased, but environmentalists and alternative energy lobbyists made damaging allegations about the committee's bias and sloppy methodology. Con. Speaker, chairman of the House Select Committee on Environmental Quality, commented in the *New York Times* that CONAES was "back of the envelope calculations" and the experts "were not qualified to make such a judgment."

food fads, saying in effect that the evidence about the impact of diet on health is so inconclusive that Americans should feel free to eat what they like. In particular the board said normal adults need not worry about the amount of cholesterol in their diet.

That recommendation contradicted the conventional medical opinion that everyone should cut cholesterol consumption in order to prevent heart disease, and it drew an extraordinary barrage of criticism not only from the press and politicians but also from a wide range of scientists.

Unfortunately the debate has been less about the substance of the report than about the integrity and competence of the board. The critics quickly discovered that the report was funded entirely by contributions from the food industry and the several members of the board, including the two who played the largest parts in writing the report, were known to food manufacturers as "the two who played the largest parts in writing the report."

The *New York Times* called the report "a job done by a committee of the food industry and the food industry's friends." The board's report was "a job done by a committee of the food industry and the food industry's friends."

that people should eat less animal fat. Soon the criticism spread to the Washington Post, which said the NAS was "a whole and to the Blochstein Institute, for the past 11 years, president Philip Handler. Under his leadership the academy has expanded into an impressive bureaucracy, with about 1,000 committees producing 300 reports a year. In addition to its own staff of 1,000 the NAS uses 9,000 outside consultants to fill its committees, subcommittees, board and panels.

Although the academy is a private charter from the United States Congress to advise the government on science and technology, it has not been successful in securing a permanent seat at the government's table. The charge is that it has imposed its opinions on the government.

Next year Philip Handler must resign as president. The academy is already a non-profit-making organization, but it is not a charitable organization. The academy is already a non-profit-making organization, but it is not a charitable organization.

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maintaining the intellectual integrity of its work. Last month a House of Representatives subcommittee held two days of hearings on the report "Toward Healthful Diets," which was packed with witnesses hostile to the food and nutrition board and continued in an angry exchange between Dr. Handler and the subcommittee chairman, Fred Richmond.

Dr. Handler's personal views tend to be conservative and sympathetic to industry, and he does not conceal his sympathy for consumer and scientific "charlatans" who support them. The charge is that he has imposed his opinions on the government.

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Michael Binyon examines Russian rift on psychoanalysis

Soviet psychologists deny slipping towards Freud

Soviet psychologists have just rejected the long-standing objections to the use of psychoanalysis and their ideological opposition to the theories of Freud.

At an important international symposium on "the subconscious" in Soviet Georgia, a number of Soviet psychologists admitted that the clinical experience of psychoanalysis had accumulated some procedural approaches that were medically useful, but they sharply disagreed with Western participants over the liberating role of psychoanalysis. Instead, the dominant psychoanalysis was socially dangerous and nothing less than a "collaboration of the human psyche".

The Tbilisi conference was held last October. A few weeks ago three of the Soviet organizers published a critical appraisal in the influential weekly *Literaturny Gost* in which they laid out their differences with Western colleagues, and refuted the view that Freud and psychoanalysis were gradually becoming more acceptable in the Soviet Union.

"We acknowledge the service that S. Freud performed as one of the first to raise the question of the important role played by the 'subconscious' in the development of the personality and human behaviour," said Professor A. Prangishvili, a member of the Georgian Academy of Sciences and chairman of the conference committee.

"However we believe that his teaching — psychoanalysis — elucidates the problem of 'subconsciousness' in a one-sided fashion, underestimates the importance of social factors in the life of the mind and human activity, and ignores commonly accepted scientific methods of analysis and proving hypotheses," he said.

Professor Prangishvili, together with the two vice-chairmen of the conference, argued in their article that psychoanalysis had "gradually turned from a primarily clinical theory into a theory that could better be called philosophical, into an idealist worldview which, although it attempted to substantiate its reactionary, pseudoscientific ideas."

All this, they said, made a



"The idea of the 'liberating mission' of psychoanalysis finds a good many adherents among left-wing intellectuals in the West. Of course, Soviet scientists not only cannot recognize the ideological aspects of psychoanalysis, they also actively oppose them."

The main debate in Tbilisi was over the slogan "Where there is no psychoanalysis, there can be no freedom of the individual". This seemed ludicrous to Soviet people although it was accepted by many in the West, the three writers argued.

They went on to exemplify the concept, which they said was based on Freud's thesis on the existence of a special psychic displacement mechanism. According to this, any impulse or desire of a person had that was not satisfied, usually because it was antisocial — was then displaced from the conscious mind to the sphere of the subconscious.



Sigmund Freud's method of psychoanalysis is a cornerstone of the human psyche, claim Soviet psychologists.

was to say that the recognition of "displaced desires" with the help of psychoanalysis had an absolute value and was useful at all times.

"Obviously everything depends on social conditions, a person's psychic state, the moral principles involved and the structure of his personality," they asked what would happen if a psychoanalyst broke down the psychological defences a person had put up against a desire he could not satisfy for moral reasons. Would the patient's conscious mind be able to curb this "unwanted" desire? Would such an ill-considered practice not ultimately have serious consequences?

Professor Prangishvili and his colleagues attacked the view that the role of the conscious mind and individual personality traits was unimportant. They said this showed a characteristic indifference towards the fate of the person on whom the psychoanalyst performed his operation. The humanism of

Polytechnic Profile- Birmingham

New director brings ring of confidence



Birmingham Polytechnic has been based during the last decade on 22 different sites, gradually gathering itself together into one vast new grey-brick complex at Perry Barr until now it stands self-confidently out from the landscape like some northern gateway in the sprawling city.

Three sides of the main Perry Barr complex have been completed at a cost of about £10m. Repeated cuts in the building programme have delayed the work. But the fourth wing should be complete by the mid-1980s. A carpark now covers the area where the new block will stand, holding the library and student union facilities, and there are some people who even prefer it that way. As more and more annexes close and the Perry Barr site expands, the polytechnic is slowly coming to life.

Perhaps more than any other polytechnic, Birmingham has been given a fairly rough ride through the 1970s. But after a number of false starts the polytechnic is set by the end of the year to approve a major new development plan and with typical British confidence is looking forward to the 1980s.

Since 1975 the local education authority has insisted that the polytechnic's budget estimates are all drawn up on a "no-growth basis", without even full cover for inflation. The result, as all staff and students freely acknowledge, has been serious underfunding of the polytechnic. An internal report produced in 1978 suggested that £1m of additional finance was needed every year to achieve a minimum standard of provision at the polytechnic.

The polytechnic was rounded off its consistent lack of funds in a sharply worded report from the Council for National Academic Awards published in February, 1979. The report pointed out that without extra resources the polytechnic would not be able to keep all its degree courses to the standard required by the CNAA — comparable to that of universities.

The report outlined "widespread" deficiencies at Birmingham: obsolete equipment was being replaced; accommodation was inadequate in many areas; the library needed a new computer; the academic work needed an enhanced computer; educational technology was underdeveloped; student welfare services and hostels needed extending; and more academic and research assistants were needed.

The report said the polytechnic was unlikely to realise its potential as one of the country's larger polytechnics in the second largest city without more funds. It said it was disappointing the L.E.A. had not opted for the polytechnic rather than an overall plan for higher education in the city, as its views on the polytechnic's future development. On previous visits in 1973 and 1975 the CNAA had also criticised the lack of resources.

The report applauded the efforts of the directorate and the staff on "advance made under difficult circumstances". It went on to make three specific criticisms: staff did not seem sufficiently concerned at the extent of deprivation in the polytechnic; staff lacked the right incentives to make the best use of available resources; and the polytechnic lacked a coherent overall plan for its future.

Mr Roy Hammond, who took over as director of the polytechnic from Mr Stuart Wilson Smedurst last September, believes the polytechnic is now poised to respond to these criticisms. In consultation with the local authority, he has devised a "indicative" development plan. If approved the plan will allow the polytechnic to switch expenditure between different budget sectors, mainly out of the staffing budget into the equipment and technical aid and support staff budgets.

He expects to mean a drop of about £100,000 in the academic budget, a loss of 11 academic posts for each of the next seven years.

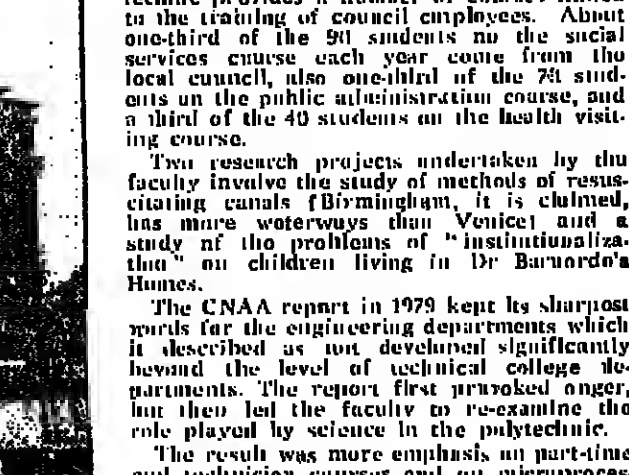
Approval of the plan will be a major landmark in the history of the polytechnic. It will be seen as a positive step to stop the drift and ensure the polytechnic's future. But it will not, indeed it cannot, make up for years of underfunding.

One leave of the polytechnic's poor financial state is that it escaped the "topping" of the Ministry of Education (MPE) and the year's reorganisation. As Mr Hammond said, the polytechnic was not a target for the MPE's "topping" and so escaped the cuts in the Ministry's budget.

For six years, Hammond said, the polytechnic has been a "victim" of the MPE's "topping". The Ministry's "topping" was a process of cutting the polytechnic's budget to match the Ministry's budget. Hammond said the polytechnic was not a target for the MPE's "topping" and so escaped the cuts in the Ministry's budget.

Paul Flather from Britain's second-largest city

same initial suspicion about granting "backdoor" degrees, with 10 people on the course including a housewife, a librarian, a secretary, and a landlord of a public house. The faculty is also working with the Workers' Education Association in promoting lectures in the inner city, and is involved in a Job Change project helping adults over 40 in develop new skills.



Birmingham Council runs the highest social services unit in the country and the polytechnic provides a number of courses linked to the training of council employees. About one-third of the 90 students on the social services course each year come from the local council, and one-third of the 70 students on the public administration course, and a third of the 40 students on the health visiting course.

Two research projects undertaken by the faculty involve the study of methods of resuscitating canals in Birmingham. It is claimed, however, that more waterways than Venice are a study of the problems of "institutionalisation" on children living in Dr Barnardo's Homes.

The CNAA report in 1979 kept its sharpest words for the engineering departments which it described as not developed significantly beyond the level of technical college departments. The report first praised the engineering departments, but then said the faculty to re-examine the role played by science in the polytechnic.

The result was more emphasis on part-time and technician courses and on microprocessors application courses, which are the only courses for which the polytechnic will automatically find new resources. Staff in the microprocessors application course has recently been doubled in six. There is a heavy demand for the 11 short courses run by the centre, a reflection of the key role microprocessors play in local industry.

The polytechnic has also just acquired a new £15,000 computer with 32 terminals and 100 users. Although it still houses Birmingham in the bottom five of the polytechnic computer league table, Mr Douglas Cliss, head of the computer centre, said the new computer would also be used to service add the facilities, teach school-teachers in the area about computers, and extend consultancy work with a panel pump with the extra 30 users. Staff for the department have been promised by the polytechnic and the local authority.

Another polytechnic "center of excellence" is the speech and language pathology diploma, shortly to be upgraded to degree status. There were 600 applications for 24 places on the diploma, which focuses on linguistics, psychology and education. The course is run by Mrs Jackie Sronglohn as a problem centred course.

One facility that has improved considerably since the CNAA report is the library, which for the first time for five years does not face a major move over the summer. Mr Michael Hammond says: "The library programme at the library had acquired an extra four tutor librarians and an extra 10.5 library assistants, mainly from the teaching budget of the polytechnic."

Business is booming at Rome's British School but cuts loom. Uli Schmetzer reports on the dilemma

Money for art's sake

Lampoons in the shrubbed courtyard, a bar looking across a tennis court where tufts of grass grow through the cracks, a colonnade beside the entrance which resembles Saint Paul's in London.

From outside and in the British School in Rome oozes old-world charm and calm. A traditional haven for scholars and artists it is set on top of the Palatine Hill in a green belt, wedged between stately villas and academic institutions.

But the tranquility of the "old school" was rudely interrupted some time ago with the announcement that the 1851 Commission's Board of Management intended to withdraw their support for the Rome scholarships in art and architecture.

The decision not only caused consternation in British art circles but could deprive the Rome school of the liveliest section of its inhabitants and some of Britain's most promising artists of a chance to paint in Rome.

It would be a pity, if the decision is confirmed, as David Whitehouse, the director of the British School, "I have never seen another institution with the same range of interests, artistic and academic. It has turned not to be a successful and both sides seem to be frustrated."

Mr Whitehouse, an archaeologist, however, is understandably cautious about criticising the board's decision. He feels the commissioners might still reconsider.

"Other people, you know, are convinced that the board of management believe the requirements of their charter to expand the influence of art upon productive industry has been made redundant by the development of high-tech design as a recognised discipline."

wrote Professor Peter de Francia from the Royal College of Art in a letter to *The Times*.

In similar letters fellow academics blasted the decision as "a betrayal of the ideals of 1851" and "a de-thronement of fine art".

At the core of the controversy appears to be the austerity programme of the British Government and a resulting sentiment that the scholarships should be channelled into more productive industrial areas instead of the infamously intangible artistic clique.

Mr Robb and fellow painter Andy Stahl have been complaining doggedly among the local press against the threat to the scholarships. They used their own impressive exhibitions of paintings completed during their scholarship year in Rome as a lobby.

Meanwhile the Channel in London is organising an exhibition of *Ten Years of Painters in Rome* to underline the importance of the scholarships.

For artists the decision of the scholarship board to phase out the scholarships by 1982, but not only been a shock but also a threat to the future of fine art in Britain. It is threatened by a change to reduce the demand for commercial art.

The commissioners, who have

In addition to the scholarship holders, the school houses an average of 100 artists and scholars on full or part-time attractions the unique school library open to scholars.

Often scholars are asked to work on seven days a week, and the school is a library with the best of the world's art and architecture.

"It is probably the most important school which has such a library system," says Mr Robb.

As well as its regular scholars, the school has a number of houses for scholars who may be in Rome to study on one particular building.

"We are running a school for scholars who may be in Rome to study on one particular building."

For six years, Hammond said, the polytechnic has been a "victim" of the MPE's "topping". The Ministry's "topping" was a process of cutting the polytechnic's budget to match the Ministry's budget.

graduate students was on show at the College of Art and Design when I visited the building. The items included a special section entitled "The Library" which included the nozzle of the pump and on the pump, and a freight container huge designed to specifications from a local firm, a sign of the strong local ties between the polytechnic and local industry.

Staff have undoubtedly put a great deal of effort into building up the reputation of the faculty of art and design but, as Mr Peter Hammond says, "The library programme at the library had acquired an extra four tutor librarians and an extra 10.5 library assistants, mainly from the teaching budget of the polytechnic."

In all there are 99 technician staff currently at the polytechnic, a relatively low figure for one of the largest polytechnics in the country. For the academic year just ending there were 10,193 students at the polytechnic, of which 4,221 were full-time, short full-time and sandwich, and 5,962 were part-time, block-release, and evenings-only.

In spite of the shortage of resources, demand for almost all the courses is good. The student staff ratio is a fairly healthy 9:1. Although this will decline if the new development plans is implemented. The SRRs range from a low of 4.6:1 in the School of Music, where tuition is often done on a one-to-one level, to 13:1 in business studies and law.

Mr Hammond is keen that the polytechnic is seen as a complement to the city's two universities. "Technicians should be encouraged with education of those who tend to production, who intend to apply their skills and create something," he said.

He wants to strengthen the links between the college and the community and local industry and improve the provision of short courses. A major step was the introduction last year of a unit-based system which allows part-time students to take a CNAA honours or degree course in one subject, within a minimum of three years and a maximum of six years.

The college started last September, after

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A black campus

continued on page 2

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The well recognized importance of the software components of computing systems does not remove the need for education in hardware engineering.

As a subject material, there is likely to be increased specialization in the pattern of education, both to meet the demand of graduates and to cater for the needs of students. This is to be expected, since the increasing (backed up by increasing availability of) hardware components, software engineering, and data processing will develop, perhaps with the establishment of powerful new disciplines in these areas, in parallel with the specialization of growth in the subject from the initial area of solution of mathematically expressed problems. It should not be supposed that the area itself is static.

In using a computer simulation, the student not only has control over the pace and order of the instruction, he also has control over the system itself. And this means that he has to direct his attention towards interpreting the symbolic/figural information presented, towards the relation between differ-

The curriculum of several orders are likely to change, will have to change, if they will be responsive to the chemistry industry. And some of the changes will be related to the introduction of computer microprocessors.

Designing a good curriculum is a challenge. It is, also, potentially, a valuable contribution to undergraduate teaching.

The author is lecturer in computer-assisted learning at the Institute of Educational Technology, University of London.

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Silicon wizardry conjures up a staffing revolution

A world with the luxury of resources to many large libraries; administrative chores removed; teaching machines providing the text for the learner and releasing the teacher from mundane tasks seems, in the technical eye, a "fine goal." However, the real

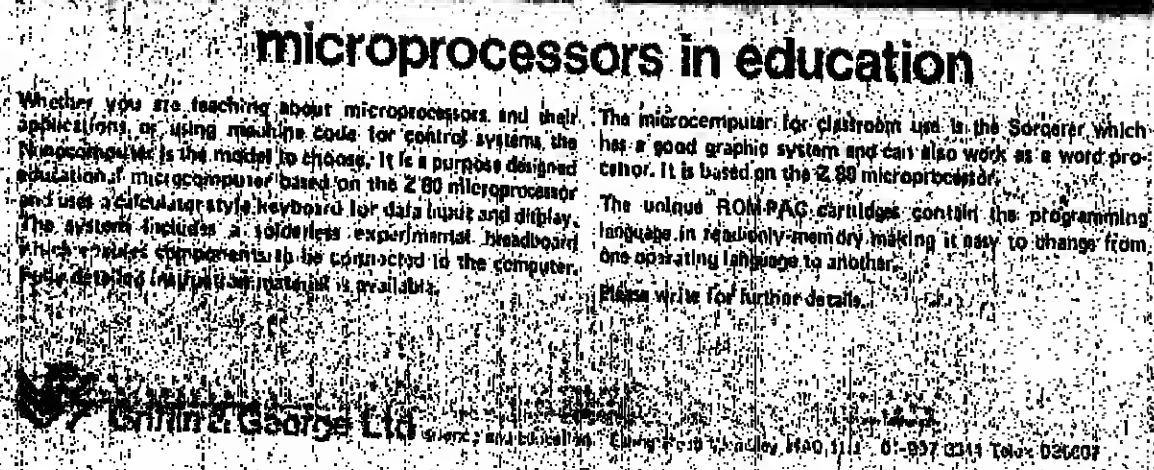


digital converter close to the mini-computer.

William Hutt
The author is principal lecturer
the Polytechnic of Central London

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Universities continued

BAYERO UNIVERSITY, KANO
NIGERIA

Applications are invited from suitably qualified candidates for the following vacancies:

- English and European
Language:
Management Studies:
Professor
Reader
Professor
Senior Lecturer
Lecturer I and II
Professor
Library Science:
Senior Lecturer
Lecturer I and II
Professor
Education:
Senior Lecturer
Lecturer I and II
Professor
Mass Communication:
Senior Lecturer
Lecturer I and II
Professor
Law:
Senior Lecturer
Lecturer I and II
Professor
Estate Department:
Senior Structural
Engineer
Senior Estate Architect

SALARIES
GL 16 N11.538-N14.260 p.a.
GL 12 N14.004-N10.128 p.a.
GL 12 N17.401-N8.052 p.a.
GL 10 N11.538-N10.128 p.a.
GL 10 N5.780-N7.332 p.a.
Senior Estate Architect: GL 11 N6.744-N7.394 p.a.
Nil equals 800 approximately.

CONDITIONS OF SERVICE
Appointments on permanent or contract basis. Contract appointments effect on addition of 25 per cent of basic salary. Part-time accommodation. Possages for self, wife and up to five children.

METHOD OF APPLICATION
Six typewritten copies of curriculum vitae stating post, full name, date and place of birth, current postal address and telephone number, nationality, marital status, educational qualifications with dates, posts held with dates, detailed list of publications. Names of three referees who know you professionally. Applicants should request their referees to forward confidential reports to:

Principal Assistant Secretary (Recruitment),
Nigerian Universities Office,
180 Tottenham Court Road,
London W1P 0LE.
to whom enquiries for further particulars and areas of specialisation required should be addressed.

UNIVERSITY OF CALABAR, CALABAR
FACULTY OF ARTS

Applications are invited from suitably qualified candidates for the post of Professor in the Department of History of the University of Calabar.

Area of Specialization: African History.

Qualifications: A candidate for the post MUST be a distinguished scholar with appropriate teaching and research experience as evidenced in published works. The candidate MUST also have previous experience in the supervision of higher degree students of both Masters and the Ph.D. levels.

Salary: Grade Level 18 (N11,568-N12,720). Point of entry depends on qualifications and experience. Method of Application: Interested candidates should forward six copies of their applications with detailed curriculum vitae to:

P.A.S. (Recruitment)
Nigerian Universities Office
180 Tottenham Court Road
London W1P 0LE
England.

They should also include two copies of each of their published works in support of their application. Candidates are also advised to request their referees (3) to forward confidential reports on them direct to the Nigerian Universities Office.

The Papua New Guinea University of Technology
Department of Mathematics

PROFESSOR AND HEAD OF DEPARTMENT

The Department of Mathematics is presently a service department teaching Mathematics to students of Engineering, Surveying, Applied Science, Architecture, Accountancy and Business Studies. The Department also offers a postgraduate programme in Engineering Mathematics. Current research interests are in areas of Astrophysics, Computing, General Relativity, Mathematical Modelling, Mathematics Education, Numerical Optimization and Theoretical Chemistry. Associated with the Department is a Research and Development Unit, the Mathematics Education Centre, which has been set up to study the problems associated with the teaching and learning of mathematics in Papua New Guinea.

Qualifications: A higher degree in Mathematics or related field with extensive teaching experience at the tertiary level and a demonstrable record for the promotion of research in the field of Mathematics. The candidate should be able to demonstrate a high level of professional achievement in the field of Mathematics. In addition, a candidate should be able to demonstrate a high level of professional achievement in the field of Mathematics. In addition, a candidate should be able to demonstrate a high level of professional achievement in the field of Mathematics.

Salary: K6,710 (K14.1 scale 84,943). Initial contract period: three years. Other benefits include a gratuity equal to 25 per cent of salary and pensionable service. For the full details of the position and the University, please contact the Principal Assistant Secretary (Recruitment), Nigerian Universities Office, 180 Tottenham Court Road, London W1P 0LE.

Detailed applications (two copies) with curriculum vitae, together with the names and addresses of three referees, should be sent to the Principal Assistant Secretary (Recruitment), Nigerian Universities Office, 180 Tottenham Court Road, London W1P 0LE. The closing date for applications is 15 August 1980. Applications received after this date will only be considered if they are accompanied by a letter from the Principal Assistant Secretary (Recruitment), Nigerian Universities Office, 180 Tottenham Court Road, London W1P 0LE.

UNIVERSITY OF CAMBRIDGE
Faculty of Economics and
Politics
Young Economist/
Statistician

required from October/November, 1980, to teach statistics at undergraduate level and to assist members of the teaching staff with the preparation of statistical material.

Applicants should have a good degree in economics with either some training in statistics or appropriate statistical experience in a government office or other organization.

Salary: Scale 10 (1979-80) £4,720-£5,082

Starting point will depend upon age and experience. Further particulars from the Secretary, Faculty of Economics and Politics, Sidgwick Avenue, Cambridge CB3 9DD, to whom applications and curriculum vitae (5 copies) should be sent by 20th August.

Applicants should name two referees and ask them to reply promptly when approached.

UNIVERSITY COLLEGE DUBLIN
FACULTY OF LAW
(TWO POSTS)

Applications are invited for two full-time academic appointments in the Faculty of Law. The appointments will be for the level of either Assistant Lecturer or College Lecturer. For one appointment preference will be given to candidates with special interest in the fields of Criminal Law and Company Law. There is a non-academic position available in the Faculty of Law. The current salary scale is:

Assistant Lecturer: £5,425-£7,761.
College Lecturer: £5,447-£7,761.

Entry point on the relevant scale will be in accordance with qualifications and experience. There is a non-academic position available in the Faculty of Law. The current salary scale is:

Assistant Lecturer: £5,425-£7,761.
College Lecturer: £5,447-£7,761.

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College Lecturer: £5,447-£7,761.

Universities continued

GLASGOW
UNIVERSITY OF DISTANCE
EDUCATION

Applications are invited for a Lecturer in the Department of Distance Education.

The successful candidate will be responsible for the development and delivery of distance education courses in the Department of Distance Education. The candidate should have a good degree in the subject and a minimum of five years' experience in the field of distance education.

Salary: £5,425-£7,761 p.a.

Further particulars from the Secretary, Faculty of Education, Glasgow University, Glasgow G3 7LA.

Applications should be sent to the Secretary, Faculty of Education, Glasgow University, Glasgow G3 7LA.

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THE ADVERTISING REGULATIONS

Advertisements in this Supplement must be placed in the following order:

1. Universities continued

2. Polytechnics

3. Further Education

4. Miscellaneous

5. Other

6. Notices

7. Other

8. Notices

9. Other

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Polytechnics continued

Ulster Polytechnic

Faculty of Education

PRINCIPAL LECTURER IN PHYSICAL EDUCATION AND SPORTS STUDIES

Principal Lecturer in Physical Education and Sports Studies with specific responsibility for course development and research.

Faculty of Technology

LECTURER II IN SENIOR LECTURER IN QUANTITY SURVEYING

Applications are invited from Chartered Quantity Surveyors, associate members of the Institution of Quantity Surveyors to holders of equivalent degrees. The successful candidate will be expected to contribute to teaching, research and curriculum development in an active school. Present work includes professional diploma course, and degree courses are being planned.

Faculty of Science

LECTURER II/SENIOR LECTURER IN COMPUTER SCIENCE (DATA PROCESSING) LECTURER II/SENIOR LECTURER IN APPLIED STATISTICS

Teaching and research in the School of Computer Science cover four main areas: data processing, computer systems, applied statistics and computer education. All applicants for the posts listed above should have a good Honours degree and/or an appropriate professional qualification. Teaching experience or professional background experience with an interest in teaching would be considered an advantage. Research and consultancy will be encouraged. Applicants for the post in Computer Science (Data Processing) should be able to contribute to the teaching of a wide range of data processing topics and to specialise in some of these areas.

Applicants for the post in Applied Statistics should have an interest in computing and be able to contribute to the teaching of applied statistics across a range of courses, concerned mainly with business information systems. Salary Scales: Principal Lecturer £4,118-£11,568 Senior Lecturer £2,785-£9,823 Lecturer II £2,325-£8,136 (Under review)

The Polytechnic is a short grant institution with an independent Board of Governors. It opened in 1971 and has a student population of some 7,000. It has extensive new purpose-built accommodation including 420 residential places on the 114-acre campus overlooking the sea at Jordanstown, a pleasant and quiet residential area. There is a scheme of assistance with removal.

Further particulars and application forms which must be returned by 15 August may be obtained by telephoning (Widnesbury 102311, 63111, 63423, or by writing to: The Establishment Officer, Ulster Polytechnic, Shore Road, Newtownabbey, Co. Antrim BT37 0QB.

Leeds

POLYTECHNIC

School of Health and Applied Sciences

LECTURER II IN

PHONETICS/LINGUISTICS

To teach these disciplines in the Speech Therapy section of the School, which conducts a three-year full-time BSc degree course in Speech Therapy. Candidates must be well qualified academically in the above fields. Previous involvement in the study of the Disorders of Human Communication would be an advantage.

Salary Scale: £4,851-£7,794

Qualify from:

The Services Officer, Leeds Polytechnic, Calverley Street, Leeds LS1 3HE. Tel: 0532 462386.

Closing date: 28 August 1980. Please enclose 3 a.s.

NORTH-STAFFORDSHIRE POLYTECHNIC
DEPARTMENT OF MECHANICAL AND CIVIL ENGINEERING
SENIOR LECTURER IN MECHANICAL AND CIVIL ENGINEERING

Applications are invited for the above mentioned post from engineers with a keen interest, and a good record in research activities. Teaching and research in one of the following areas will be appropriate: Systems Engineering, Plant Engineering, Manufacturing Systems with Materials Science. Salary: £7,765-£9,165 (Gr. 6-8, £22 Under Review).

Application forms and further particulars may be obtained from the Deputy Director (Staffing), North Staffordshire Polytechnic, College Road, Stoke-on-Trent ST4 2DA.

PLYMOUTH POLYTECHNIC

Faculty of Technology

Department of Communication Engineering

LECTURER II COMMUNICATION ENGINEERING

(Temporary one-year post)
Salary range:
£4,931-£7,794
(under review)

To teach on the Communication Engineering degree course, also Radio Communication on the Marine Electronics Diploma Course. Candidates should possess a Degree in Electrical/Electronic/Communication Engineering together with appropriate industrial experience. Preference will be given to candidates with knowledge of, or particular interest in, marine communication.

Application forms to be returned by Friday, 26th July, 1980, can be obtained with further particulars from the Personnel Officer, Plymouth Polytechnic, Drake Circus, Plymouth PL4 8AA.

LONDON THE POLYTECHNIC OF NORTH LONDON

DEPARTMENT OF ACCREDITED ADVANCED TECHNOLOGY

SENIOR LECTURER II IN COMMUNICATIONS

Temporary Lecturer II is required to teach on the new Advanced Technology course in Communications Engineering. The successful candidate will be responsible for the teaching of the course and for the supervision of the students. The course is a three-year full-time BSc degree course in Communications Engineering. The successful candidate must have a good Honours degree in Communications Engineering or a related subject. The successful candidate must also have a minimum of five years' experience in the field of Communications Engineering. The successful candidate must also have a minimum of five years' experience in the field of Communications Engineering.

Salary Scale: £4,851-£7,794 (Under review)

Application forms and further particulars may be obtained from the Deputy Director (Staffing), North Staffordshire Polytechnic, College Road, Stoke-on-Trent ST4 2DA.

Closing date: 28 August 1980. Please enclose 3 a.s.

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Colleges of Further Education



Teaching/Lecturing Staff

Applications are invited for the following posts to the Authority's services to commence in September, 1980, unless otherwise stated.

WEST GLAMORGAN INSTITUTE OF HIGHER EDUCATION, Townhill Road, Townhill, Swansea.

Lecturer I/II—Film Studies and Communications

The successful applicant will be appointed to lecture in Film Studies in the B.A. (Combined Studies) degree which has been validated by the University of Wales. The appointment will also be required to teach Communications on courses across Faculties in the Institute. A good initial degree is required with, preferably, a high degree in Film Studies and a strong interest in Communications. Industrial experience will be an advantage. To commence as soon as can be arranged. (Post ref. HE/4/3/77/79).

Lecturer II—Sociology

The successful applicant will be expected to lecture in the B.A. (Combined Studies) degree, which has been validated by the University of Wales, contribute particularly to courses on the Sociology of the Media, Industrial Sociology. The appointee will also teach courses in Management and Business Studies and will also be required to undertake some teaching on the courses, including the Diploma of Higher Education. A good initial degree is required with, preferably, a high degree in Sociology. Industrial experience will be an added advantage. To commence as soon as can be arranged. (Post ref. HE/4/4/77/79).

Application forms and further particulars for the above posts can be obtained from the Principal, West Glamorgan Institute of Higher Education, Townhill Road, Townhill, Swansea, SA2 8UT.

Cambridgeshire College of Arts and Technology

Department of Science

Head of Chemistry Section

Principal Lecturer

The Section is responsible for the BSc Hons Chemistry degree teaching and for a wide range of part-time courses, including HNC and Higher TEC, for students from local industry, research establishments and the University. The successful candidate will be responsible for the teaching of the course and for the supervision of the students. The course is a three-year full-time BSc degree course in Chemistry. The successful candidate must have a good Honours degree in Chemistry or a related subject. The successful candidate must also have a minimum of five years' experience in the field of Chemistry. The successful candidate must also have a minimum of five years' experience in the field of Chemistry.

Salary Scale: £4,851-£7,794 (Under review)

Application forms and further particulars may be obtained from the Deputy Director (Staffing), North Staffordshire Polytechnic, College Road, Stoke-on-Trent ST4 2DA.

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Research Posts continued

EDINBURGH

THE UNIVERSITY

DEPARTMENT OF PHYSICS

RESEARCH ASSISTANT

Applications are invited for the post of Research Assistant in the Department of Physics. The successful candidate will be responsible for the teaching of the course and for the supervision of the students. The course is a three-year full-time BSc degree course in Physics. The successful candidate must have a good Honours degree in Physics or a related subject. The successful candidate must also have a minimum of five years' experience in the field of Physics. The successful candidate must also have a minimum of five years' experience in the field of Physics.

Salary Scale: £4,851-£7,794 (Under review)

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Overseas continued

CAULFIELD INSTITUTE OF TECHNOLOGY, MELBOURNE, AUSTRALIA
SCHOOL OF COMPUTING AND INFORMATION SYSTEMS
Department of Robotics and Digital Technology

Principal Lecturer

(Full time)

Applications are invited for the position of Principal Lecturer in Digital Technology. The appointee will be responsible to the Dean of the School for the overall development of the new Department of Robotics and Digital Technology with respect to:

- the establishment of a Centre for Robotics;
- the establishment of a Laboratory of Digital Technology;
- the development of education in robotics;
- the formation of a research and development group to develop and design prototype robotic systems;
- the design and construction of facilities for the development and production of micro-electronic circuits and systems;
- the development of relevant education for training people in the manufacture and use of micro-electronic circuits and systems;
- the development of relevant education for training people in the manufacture and use of micro-electronic circuits and systems;

A high qualification in computer science and/or digital technology is essential. The appointee should have a minimum of five years' experience in the design and construction of micro-electronic circuits and systems, and/or experience in the design and construction of a micro-electronic system in a practical working knowledge of digital technology.

The post-holder must be able to present and deliver lectures and seminars. Salary: \$42,744 p.a. (including superannuation) plus a pensionable salary.

Written applications, in duplicate, quoting the reference number, should be sent to the Principal Lecturer, Caulfield Institute of Technology, 900 Dandenong Road, Caulfield East, 3145, Victoria, Australia.



CAULFIELD INSTITUTE OF TECHNOLOGY
900 Dandenong Road, Caulfield East,
3145, Victoria, Australia

UNIVERSITY OF GUYANA VACANCIES INSTITUTE OF DEVELOPMENT STUDIES

The Institute of Development Studies of the University of Guyana, invites applications for research positions in the following subject areas:

- LAW**
(One (1) Research Fellow or Senior Research Fellow)
The Role of Law and the Administration of Justice in Guyana.
- POLITICAL SCIENCE**
(One (1) Research Fellow or Senior Research Fellow)
Foreign Policy in the Caribbean.
- SOCIOLOGY**
(One (1) Research Fellow or Senior Research Fellow)
Change in Family Organisation in Guyana and Trinidad.
- GENERAL**
(Two (2) Research Associates)
To be assigned.

The final determination of the terms of reference and general framework of the studies chosen will be done in consultation with the Director of the Institute of Development Studies. For the full details of the duties and responsibilities of the research fellows, please apply to the Director of the Institute of Development Studies, University of Guyana, P.O. Box 641, Georgetown, Guyana, where the appointments are for a two-year contract.

SALARY SCALES (FOR ANNUUM): U.S. \$1,000-022.50 approx.
Research Fellow: U.S. \$15,000 x 0.045-0.047, 720.
Senior Research Fellow: U.S. \$15,000 x 0.045-0.047, 300.
Research Associate: U.S. \$15,000 x 0.045-0.047, 150.
Benefits include a gratuity, housing allowance, contributory medical scheme and leave of absence. For the full details of the duties and responsibilities of the research fellows, please apply to the Director of the Institute of Development Studies, University of Guyana, P.O. Box 641, Georgetown, Guyana, where the appointments are for a two-year contract.

Classified Advertisements

To advertise in The Times phone
Lorraine Williams 01-837 1234 Extn 575

THE TIMES Higher Education SUPPLEMENT

New Printing House Square, P.O. Box 7
Gray's Inn Road, London WC1A 8EZ

EDUCATIONAL POSTS OVERSEAS

Ministry of Posts, Telegraphs and Telephones (Saudi Arabia)

The British Council has been asked to provide English Language instruction for trainees at the Telecommunications and Broadcasting Training Institutes and the Saudi Telephone Training Centre at Riyadh and Jeddah. THE WORK will be based on English for Special Purposes approach and will combine subject instruction and the teaching of English skills in job-oriented exercises and operations. The subjects include: mathematics, electronics, electricity and power engineering as well as specialized job areas of telecommunication, broadcasting and telephone operation, maintenance and repair. Students will be trained to follow technical lectures wholly or partly in English, to undertake problem-solving exercises in English and to use a wide range of English technical manuals.

The following staff will be required for September, 1980.

DIRECTOR (based in Riyadh)
Telecommunications and Broadcasting Training Institute, Riyadh
PROGRAMME MANAGER (Deputy Director)

CHIEF INSTRUCTOR
15 INSTRUCTORS
REPROGRAPHICS SPECIALIST

Telecommunications and Broadcasting Training Institute, Jeddah
CHIEF INSTRUCTOR

Saudi Telephone Training Centre, Riyadh
PROGRAMME MANAGER (Deputy Director)
CHIEF INSTRUCTOR

Saudi Telephone Training Centre, Jeddah
CHIEF INSTRUCTOR
5 INSTRUCTORS

A further 10 Instructors will be required by January, 1981. All posts are for men only.

THE DIRECTOR will have overall responsibility under the Ministry for the design and implementation of the programme. He will direct the London-recruited teaching staff and a locally engaged support and administrative staff.

KEY ENGLISH LANGUAGE TEACHING SCHEME

The following post is wholly financed by the British Government as part of Britain's programme of aid to develop countries under the Key English Language Teaching (KELT) Scheme.

LECTURER IN ESP METHODOLOGY (Syria)
University of Damascus

This is the Senior of two new posts designed to assist in establishing a Centre for teaching English for Specific Purposes within the University of Damascus. Duties: to be responsible to the Centre Director for the design and direction of training courses conducted by the Centre; establishment and maintenance of the Centre.

Qualifications: Candidates, aged 35-50, must be UK citizens; have a degree plus one-year Postgraduate TEFL qualification or MA in Applied Linguistics; and five years' teaching experience including a minimum of two years' ESP experience overseas. Knowledge of Arabic desirable. Salary: £10,388-£12,272 (including 10% Indemnity). Married Overseas Allowance: In the range of £848-£1,060 p.a.

Benefits: Salary free of UK Income Tax; free family allowances; children's education allowances and holiday pay; free furnished accommodation; official allowances; medical; pension; baggage allowance; paid leave; Post Office Pension Scheme, 1980. Contract will be for two years. The Selection Board will be held in August.

Salary levels are paid. Local contracts are governed by the British Council. Please apply to the British Council, 11, Bedford Square, London WC1A 1EJ. Details and application form to the British Council (Appointments), 11, Bedford Square, London WC1A 1EJ.

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Candidates must have a postgraduate qualification in EFL or Applied Linguistics, and a relevant experience in ESP and materials preparation and course design and/or administrative experience in positions of leadership. Some experience of the Arab world is desirable.

THE STAFF will have either a postgraduate qualification in EFL or Applied Linguistics and some TEFL experience or a relevant scientific or technical qualification with experience of or interest in the linguistic problems of foreign students of science and technology. Programme Managers and Chief Instructors will have administrative experience and leadership skills. There will be opportunities for course design, materials preparation and classroom teaching and administration. On-the-job training will be provided for those whose background is in language teaching or in technical instruction and who are interested in relating the two.

TERMS OF SERVICE

Basic Salaries:
Director: SR7,000 per Hijra month (29 days) annually revised.
Programme Managers: Starting at SR5,583 per Hijra month rising by annual increments of SR130 (app) to SR5,995.

Chief Instructors: Starting at SR5,583 per Hijra month rising to SR5,453.

Instructors & Reprographic Specialist: Starting salary in the range of SR4,265-SR4,934 according to age, qualifications and experience. Annual increments.

Other Emoluments:
Post Allowance: SR250 per month (single), SR260 (married).

Trip Allowance: SR500 per month.

Baggage Allowance: Half of first month's salary.

Child Allowance: SR125 per month (per child), SR200 (over five).

Educational Allowance: SR10,000 per annum (first child), SR8,000 per annum (second child).

There is no taxation in Saudi Arabia and earnings are fully convertible to sterling. Current rate of exchange is £1=SR7.34.

Benefits:
Free furnished accommodation; termination grant after three years' service; 45 days paid leave per annum; sick leave; fully reimbursable passage with the British Council.

Centres' resources centre: advice on and coordination of all ESP teaching and examining within the University.

Qualifications: Candidates, aged 35-50, must be UK citizens; have a degree plus one-year Postgraduate TEFL qualification or MA in Applied Linguistics; and five years' teaching experience including a minimum of two years' ESP experience overseas. Knowledge of Arabic desirable.

Salary: £10,388-£12,272 (including 10% Indemnity). Married Overseas Allowance: In the range of £848-£1,060 p.a.

Benefits: Salary free of UK Income Tax; free family allowances; children's education allowances and holiday pay; free furnished accommodation; official allowances; medical; pension; baggage allowance; paid leave; Post Office Pension Scheme, 1980. Contract will be for two years. The Selection Board will be held in August.

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Union view

Judicial stick descends on Burnham body

The Burnham Further Education Committee came in for some judicial stick in the High Court last week. Delivering judgment in favour of Natfhe and the Central Arbitration Committee, against Gloucestershire County Council, Justice Kilner-Brown declared that the Burnham Committee had failed in its statutory duty. The case concerned an appeal by Gloucestershire against the finding of the Central Arbitration Committee that the county had acted in bad faith in refusing to accept the terms of a proposed settlement of the dispute over pay and conditions of service. The settlement was for a 2% increase in pay and a 1% increase in the pension scheme.

Justice Kilner-Brown said that the Burnham Committee had failed to act in good faith in refusing to accept the terms of the proposed settlement. He said that the committee had acted in a way which was calculated to frustrate the purpose of the arbitration process. He said that the committee had acted in a way which was calculated to frustrate the purpose of the arbitration process.

By some quirk of fate, on the same day that Justice Kilner-Brown was judicially stickling the Burnham committee, the High Court was also dealing with a case involving the Burnham committee. The case was brought by the Burnham committee against the Gloucestershire County Council. The committee claimed that the council had acted in bad faith in refusing to accept the terms of a proposed settlement of the dispute over pay and conditions of service.

This very process of statutory arbitration whereby the findings of the arbitrators become, unless the Secretary of State objects, the subject of a new award, is just one of the grounds of criticism of the Burnham machinery. The teachers' and employers' associations, like the Burnham committee, are not happy with the way in which the process works. They say that it is too slow and that it is too costly. They say that it is too slow and that it is too costly.

There has been a good month for teachers. Their livelihoods have been considerably enhanced during the past few years. The Burnham committee has been successful in its efforts to secure a 2% increase in pay and a 1% increase in the pension scheme. The Burnham committee has been successful in its efforts to secure a 2% increase in pay and a 1% increase in the pension scheme.

Two weeks ago I found myself again agreeing with a Liberal when David Alton argued that the Mersey local authority, by relating its rates by 50 per cent with every determination to go on raising them massively to pay for further increases in its spending—was doing a "diservice to the local economy" because it forced many firms to leave the area. The next day saw the Labour union outburst against Jim Prior's suggestion of community service for unemployed young people. "The real answer," claimed Alan Fisher, "is to increase public spending to provide proper and permanent jobs."

But if the control of inflation is to be the central aim of policy, the means of achieving it are bound to involve a transitional increase in unemployment. The sooner inflation comes down, with pay increases meeting the fall in the money wage, the sooner the economy will be able to return to full employment. In the meantime, government must address itself to mitigating some of the side-effects.

What is surprising about Prior's tentative suggestion is not that it was made but that it has taken so long for government to look seriously at the proposal. It is certainly not an original idea. The trouble is the alliance of treasury mandarins and trade union bosses. The former worry about the inflationary impact of the latter's inactivity.

Why should Britain treat its two most important partners in its economic life with such suspicion? Why should the former be so afraid of the latter's inactivity? Why should the latter be so afraid of the former's inactivity? Why should the former be so afraid of the latter's inactivity? Why should the latter be so afraid of the former's inactivity?

My last piece asked: "When is a colony not a colony?" The answer, apparently, is: "When it's a French department." Guadeloupe, Reunion, Martinique and French Guiana would you believe?—are no longer overseas; their students are no longer "home" students. So too are those from Greenland.

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enrichment itself perverts the bargaining process since, quite naturally, the employers' offers usually fall short of what they have in the kitty in case more should later be pressed from it by arbitration. But perhaps the most damning criticism of the present arrangements is that they give rise to a salaries document which, being a statutory one, written with the greatest legal clarity of mind, if the complaints falling on my desk every week are anything to go by, I would estimate that at least a tenth of the profession have their salaries wrongly determined under the Burnham Report. Consider the difficulties of interpretation of the report—rescinded these connected with holy writ.

No one can believe that the present salary system fulfils the essential needs of institutions or even for the complex academic management structure required, say, in polytechnics. The Burnham Committee has failed in a more basic sense as is witnessed by the fact that in the past six years its work has had to be taken over by two

commissions, Hargreaves and Clegg, and now an impartial body.

These failures have led to the demand for the abolition of Burnham and its replacement by a statutory collective bargaining committee which would allow the joint determination of salaries and conditions of service. Even the much heralded NJC for Further Education teachers which at the present can only deal with conditions but which, if the 1965 Act is repealed, could be Burnham's job as well. Given the soundings of triumph in each of the two bodies, it is not surprising that the NJC has not got off to such a promising start. Its first meeting had to be adjourned because of poor attendance by the management panel; its second was hardly more successful since it failed to reach agreement on anything of significance in spite of being helped by terms like redundancy in its agenda. One cannot be surprised that the teachers' face faced with the choice of the level of Burnham, or the deep blue sea of the NJC.

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employment because the Secretary of State has instructed a reduction in students following initial tendering courses. Simple enough, you may think. In fact, the regulations are so badly written that they make Burnham's uniqueness seem like light. Due to this and, frankly, the determination of the DES and some local authorities to exploit the lack of clarity of the law, Natfhe has been engaged, in the past three years, in positioning industrial tribunals in more than a hundred cases arising from the Crombie Code.

On this occasion the trend has gone Natfhe's way—it has won over 90 per cent of the cases petitioned. That is hardly the point. The point is that resort to law has been encouraged—some would say forced—by the failure of the DES and some local authorities to exploit the lack of clarity of the law. Natfhe has been engaged, in the past three years, in positioning industrial tribunals in more than a hundred cases arising from the Crombie Code.

Many will say that the real waste lies in the closure, for educational purposes, of more than 30 colleges of education. The present government's economic policies, and the positive effect with which some local authorities are adopting them, could be a sense of déjà vu about the future of higher education. The civilised belief in higher education for its own sake is in danger of being replaced by a utilitarian philosophy which would reduce the whole of educational provision to the needs of an all-embracing economy and industry.

Meanwhile, in Parliament the Employment Bill steamrollers the way to the statute book. When the bill is passed, it will make it easier to sack academics, especially temporary and part-time staff, and to make redundancies and prevent, by way of the repeal of Schedule 11, redress against depressed pay and conditions. Will the educational community see sense and agree, as collective bargainers, arrangements to compensate for the erosion of individual rights? Or will it rush headlong to the courts to construct the meaning of the new law?

Well, as they say in Yorkshire, here incidentally there is another legal wrangle about part-time rates, there's now so much at stake.

The author is the assistant secretary (libraries) of the National Association of Teachers in Further and Higher Education.

nounce anything that looks like child labour. Youth unemployment is so debilitating to the individual and such a waste of human energy that some effort must be made to overcome the obstacles. As regards cost, we need not think

